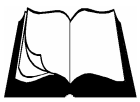
OG7502/OG7504 ATMOSPHERIC STEAMER

USER, INSTALLATION, SERVICING AND CONVERSION INSTRUCTIONS

Dear Customer,
Thank you for purchasing this Lincat product.

This is just one of over 300 different items of catering equipment available which is constantly being extended and improved. Details are available from your local distributor or direct from us.
Used for the purposes for which it is intended, and with careful maintenance as outlined in this User Guide, your Lincat product will give you years of trouble free service.

IMPORTANT INFORMATION



Please read all of the safety and operating instructions carefully before using this product. Please pay particular attention to all sections of this User Guide that carry warning symbols and notices.

WARNING!
This is a Warning symbol. This symbol is used throughout the user guide whenever there is a risk of personal injury. Ensure that these warnings are read and understood at all times.

CAUTION!
This is a Caution symbol. This symbol is used throughout the user guide whenever there is a risk damaging your Lincat product. Ensure that these warnings are read and understood at all times.

NOTE:
This is a Note symbol. This symbol is used throughout the user guide to provide additional information, hints and tips.

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WARNINGS AND PRECAUTIONS

It is mandatory that all appliances are installed, commissioned and serviced by a qualified and competent person as defined by the regulations in force in the country of installation.

Failure to comply will invalidate the warranty.

WARNING!
This appliance must be installed by a competent installation engineer in accordance with the installation instructions, and should conform to the following requirements:

Do not obstruct or block the appliance flue.

Installation must include sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which they are installed.

It is recommended that this appliance is sited under an extraction canopy for the removal of combustion products

After operation, some parts of the appliance will remain hot for a period of time. Please take care to avoid accidental burns.

CAUTION!
All equipment must be earthed to prevent shock.

Do not connect directly to any flue, ducting or mechanical extraction system.

Installation should allow for a sufficient flow of fresh air for gas combustion.

Parts which have been protected by the manufacturer or his agent must not be adjusted by the installer or user.

TECHNICAL DATA

Model	OG7502	OG7504

Dimensions

Overall height (mm)	1600	
Width (mm)	600	
Depth (mm)	950	750
Weight (kg)	123 kg (Nett)	110 kg (Nett)
Usable oven capacity w x d x h (mm)	545 x 680 x 720	545 x 480 x 720
Oven shelf size (mm)	650 x 530	434 x 530

Heat Input

Total heat input Natural (Gross)	13.0 kW
Total heat input Propane (Gross)	13.0 kW

Connection and Operating Pressures

Gas inlet connection	½" BSPT Male
Supply Pressure - Natural	20 mbar
Operating Pressure - Natural	16 mbar
Supply Pressure - Propane	37 mbar
Operating Pressure - Propane	25 mbar

Gas Consumption

Total gas rate – Natural	1.24 $m^3 h^{-1}$
Total gas rate – Propane	0.93 kg h^{-1}

Water Connection	
Inlet Connection	15mm
Pressure	20 – 1000kPa (0.2 – 10bar)

COMMISSIONING

PREPARATION

Remove all packaging and protective coatings prior to installation.

VENTILATION

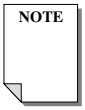
The area in which this equipment is to be installed should have sufficient fixed ventilation to comply with local legislation requirements. It is recommended that a room, or internal space, be provided with a minimum free area of 4.5cm^2 per kW (3,400Btu/hr) of total heat input.

CHECK LIST OF ENCLOSURES

Please ensure the following items are included with this piece of equipment:

Model	OG7502	OG7504	Tick
Warranty Card	1		
User Instructions	1		

SERIAL NUMBER



Each appliance manufactured at Lincat has a unique identifying number found in the top right hand corner of the data plate, located behind the lower door on the LH chassis leg. Please record that number in the space provided should it be required for future reference.

Serial Number	

MARK OF CONFIDENCE

Every single product that leaves our factory bears a serial plate showing the assembler's initials. It's a mark of confidence we have in our people and our manufacturing process.

INSTALLATION

SITING

The installer must ensure that all regulations are met and that there is an unobstructed minimum distance of 400mm from the top of the flue to the ceiling, which must be of non-combustible material.
The appliance should be installed on a level surface ensuring the unit is stable and firmly located. It should be well lit, draught free and positioned to minimise the possibility of accidental touching.
Any partitions, walls or kitchen furniture in close proximity must be of non-combustible materials and not be closer than 100mm from the sides and rear. A minimum clear space of 600mm to the front to allow for safe operation.

WATER SUPPLY AND CONNECTION

Install in accordance with BS EN 1717 and the National Water Regulations in Use.

Connection is at the rear of the unit via a 15mm compression fitting with check valve.

When making the connection to the appliance an isolating cock should be fitted into the supply line close to the unit, for emergency shutdown or servicing purposes.

GAS SUPPLY AND CONNECTION

Connection is at the rear of the unit via a 1/2" G male thread.

Connection shall comply with local regulations.

When making the connection to the appliance an isolating cock should be fitted into the supply line close to the unit, for emergency shutdown or servicing purposes.

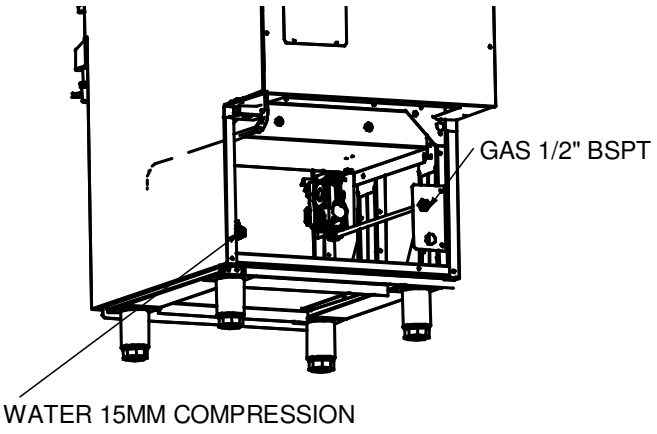


Fig. 1

INSTALLATION (cont.)

SUPPLY PRESSURES

- To gain access to the gas pressure test nipple open the lower compartment door. The nipple is situated on the control valve.
- Remove the blanking screw and attach a pressure gauge to the boss of the test nipple.
- Light the burner.
- With main burner at maximum adjust the onboard governor to **15mbar for Natural gas** and **25mbar for Propane gas**.

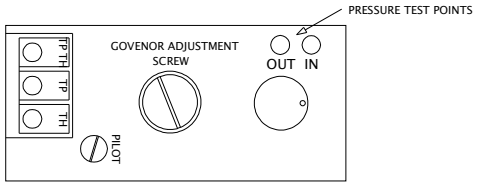


Fig. 2

OPERATIONAL CHECK

Although all Lincat products are functionally checked during manufacture, commissioning must include an operational check of all controls.

- Light the unit several times as per instructions, checking for correct and smooth operation.

CONVERSION OF GAS TYPES

WARNING : This unit is supplied ready for installation to the supply specified at the time of ordering. Should conversion be necessary, please follow the instructions below.

Conversion of this appliance must only be carried out by a qualified gas engineer.

- Remove main burner jets and aluminium washer. Do not re-use washer. Care must be taken not to cross thread the jets when refitting.
- Remove pilot jet and fit replacement.
- Remove data plate & sticker from the unit and replace with data plate and sticker supplied.
- **For Natural to Propane Gas only:** remove the gas control regulator screw and replace the spring (with the one provided). Carefully re-assemble.
- Re-set the burner pressure (see table below) via the burner test nipple and the gas controls governor. Replace the governor cap on completion.
- Test unit for gas soundness.

Model	Gas	Pressure	Injector	Ø	Mark	Part No.	Regulated
OG7502 OG7504	G20	20 mbar	Main	2.80	280	JE153	16 mbar
			Pilot		41	JE57	
	G31	37 mbar	Main	2.00	200	JE98	25 mbar
			Pilot		30	JE56	

USER INSTRUCTION

APPLIANCE USE

This appliance is only for professional use and should only be used by qualified personnel. Ensure that the person responsible understands how to light, safely operate, clean and shutdown the appliance and is made aware of the position and operation of the isolating valves (gas, water & electricity) in the event of an emergency.

CONTROLS

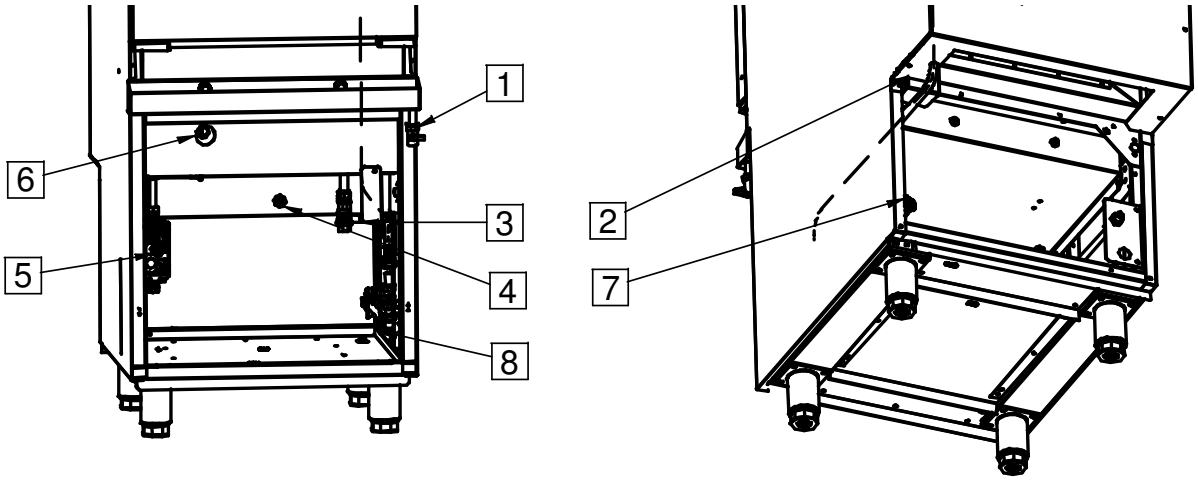


Fig. 3

1) Drain Valve (Drip Trough)
2) Re-Set Button (Safety Cut-Out Thermostat)
3) Drain Valve (Oven Chamber)
4) Piezo Ignitor
5) Control Knob
6) Burner/Pilot Viewing Hole
7) Check Valve c/w Tap
8) Water Inlet Tap

WATER LEVEL

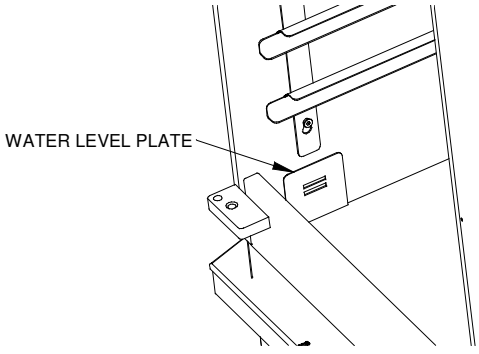


Fig. 4

USER INSTRUCTION (cont.)

LIGHTING SEQUENCE

Please ensure that the gas and water isolation valves for the appliance are turned to the 'OPEN' or 'ON' position before attempting to light the appliance.

DO NOT OPERATE WHEN TANK IS EMPTY.

- Open the lower compartment door to gain access to the controls.
- Check water level is between indicator marks (see Fig. 4).
- Push in the control knob (6) then rotate **anti-clockwise** to the "pilot" position.
- Ignite the pilot by depressing the piezo ignition switch (5).
  (If the pilot fails to ignite, turn the control knob to the "OFF" position and repeat).
- After ignition, hold the knob in for approximately 20 seconds to ensure that the pilot has established correctly.
- Release the knob and fully turn anti-clockwise to the "ON" position.

Note: The control valve is fitted with a step opening ignition device which reaches full rate after approximately 10 seconds.

Caution: The re-start interlock device prevents the appliance from re-igniting until the flame supervision device has interrupted the gas flow. After this stage it is possible to re-ignite the appliance.

Standby: Turn the control knob (6) clockwise to the "pilot" position.

Note: Should the safety cut-out thermostat (2) operate during normal use the unit will shut down. To re-light the unit re-set the safety cut-out thermostat by depressing the red re-set button (2). The re-set button is located behind the lower compartment door at the rear of the appliance (see Fig. 3).

SHUT DOWN

To turn the unit off completely, slightly depress the control knob (6) and rotate to the "OFF" position, indicated by●. Close gas and water isolating valves. Drain tank (see Fig. 6) and thoroughly dry inside of tank.

Warning: When operating the gas control valve behind the door, care must be taken to avoid accidentally touching internal surfaces, which become hot during normal operation.

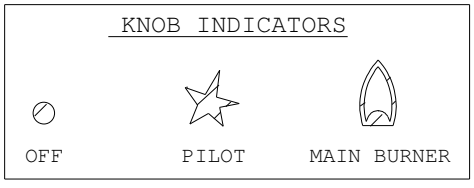


Fig. 5

USER INSTRUCTION (cont.)

DRAINING OVEN CHAMBER

Before draining it is recommended that the appliance is allowed to cool.
To drain, place a suitable receptacle beneath the valve. Push catch to the left and open drain handle.

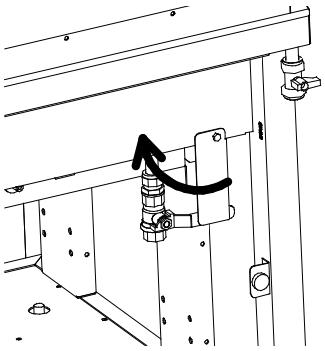


Fig. 6

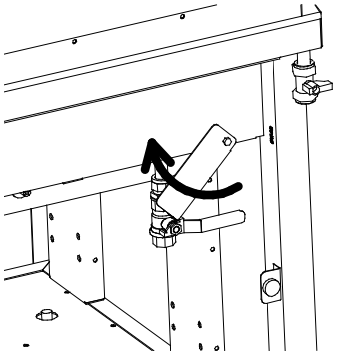


Fig. 7

OPENING THE STEAMER DOOR WHEN HOT:

IMPORTANT – Do not fully open door when steamer is hot. First, slacken off door handle and allow steam to vent around door opening. Wait at least 15-20 seconds before slowly opening door fully. This precaution prevents a sudden discharge of steam into the operators' face. **Always open door slowly and in two stages.**

CLEANING

It is recommended that the appliance be drained and cleaned at the end of each working day in order to prevent any build-up of sediment and/or grease.
Ensure the appliance is cool and the gas and water supplies are isolated before commencing cleaning.
Open drain taps, remove oven furniture and clean all inner surfaces using a warm detergent solution.
Rinse and dry thoroughly.
After use wash the unit down with a warm detergent solution.

APPLIANCE USE

Do not use any products containing chlorine or hydrochloric acid to clean stainless steel surfaces.
Do not clean the appliance using a water jet.

SERVICING

For information on authorised service agents please see the section at the end of these instructions.

ROUTINE SERVICE

1) Carry out a general check of the installation paying particular attention to the following:-
   - has the unit been installed using the correct gas hose?
   - does the unit have a safety chain?
   - does the unit have separate isolation valves for gas and water?

2) Check all components for correct operation and replace where necessary, following the appropriate instructions.

3) Visually check the burner operation, closely observe the flame picture and look for evidence of debris or damage. Remove burner (see page 12) and clean or replace as necessary.

4) Visually check the injectors and replace (see page 12) or clean as necessary (clean using a brush with nylon bristles or similar). Avoid using metal reamers or wire as this may damage or increase the orifice size.

5) Check the burner pressure and adjust where necessary with the unit in full operation, at the test nipple located on the valve (See page 7).

6) Check the alignment of the thermocouple and electrode within the pilot assembly. Adjust if necessary.

7) Ensure that the flue is clear.

8) Ensure that all water carrying components are sound and free from leaks.

9) Check correct operation of the float valve.

10) Carry out a gas soundness check.

COMPONENT REPLACEMENT

Ensure that the gas, water and electricity supplies to the unit have been turned off before removing or dismantling any components.

Control Valve

- Undo the thermocouple and remove thermopile wires (noting their position).
- Disconnect the gas supply, burner feed and pilot pipes.
- Remove the 4 screws securing the valve to the chassis.
- Remove brass fittings from the old valve and fit these to the replacement valve. Note: Replacement valves are not fitted with the brass fittings.
- Re-assemble in the reverse order.
- Perform gas soundness test of circuit prior to operation of appliance.

Burner & Injector

- Remove the Stainless Steel cover secured by 4 screws.
- Remove the Mild Steel cover plate secured by 7 screws.
- At this stage the injector (with its washer) can be removed using a 12mm spanner.
- Remove the nut (using an 8mm spanner) securing the RH side of the burner.
- Undo the thermocouple using a 10mm spanner.
- Disconnect the ignitor lead from the electrode.
- Undo the pilot pipe using a 10mm spanner taking **care not to lose the pilot injector**.
- Undo the gas supply coupling to the burner.
- Undo the 2 screws below the LH side of the burner.
- The burner together with the pilot assembly can now be withdrawn.
- Re-assemble in the reverse order.
- Perform gas soundness test of circuit prior to operation of appliance.

Pilot Assembly

- Proceed as described above.
- Once the burner, together with the pilot assembly has been removed, the pilot assembly can be removed from the burner by undoing the 2 fixing screws.
- Re-assemble in reverse order.
- Perform gas soundness test of circuit prior to operation of appliance.

Thermocouple

- Remove the Stainless & Mild Steel covers secured by 4 & 7 screws respectively.
- Undo thermocouple from the valve body using a 9mm spanner.
- Undo thermocouple from the pilot assembly using a 10mm spanner.
- Re-assemble in reverse order.

Thermopile

- Remove the Stainless & Mild Steel covers secured by 4 & 7 screws respectively.
- Disconnect wires from valve (noting their position).
- Undo thermopile from pilot assembly using a 10mm spanner.
- Re-fit components.
- Perform gas soundness test of circuit prior to operation.

COMPONENT REPLACEMENT (cont.)

Ignitor Electrode

- Remove the Stainless & Mild Steel covers secured by 4 & 7 screws respectively.
- Disconnect wire from electrode.
- Undo electrode from pilot assembly using a 10mm spanner.
- Re-assemble in reverse order.

Thermostat

- Working in the oven chamber remove the oven furniture and disconnect the thermostat phial from its holder.
- In the lower chamber undo the 2 screws securing the hinged drop-down panel.
- Undo the 2 screws securing the thermostat to its bracket.
- Disconnect the wires (noting their position).
- Remove the upper back panel secured with 12 screws.
- Withdraw the phial through its gland.
- Re-assemble in reverse order.
- **Ensure that the thermostat phial is not kinked – has no sharp bends and is correctly located in its holder.**

Safety Thermostat

- Working in the oven chamber remove the oven furniture and disconnect the thermostat phial from its clip (taking note of its position).
- Working from the rear of the appliance remove both back panels.
- Undo the 2 screws securing the thermostat bracket to the cabinet.
- Undo the 2 screws securing the thermostat to the bracket.
- Disconnect the wires (noting their position).
- Withdraw the phial through its gland.
- Re-assemble in reverse order.
- **Ensure that the thermostat phial is not kinked – has no sharp bends and is correctly located in its holder.**

Piezo Ignitor

- In the lower chamber, undo the front 2 screws securing the lower hinged drop-down panel.
- Disconnect the ignitor lead.
- Undo locknut and remove piezo ignitor.
- Re-assemble in reverse order.

Float Valve

- Remove both back panels.
- Lift off the reservoir cover plate (secured by a single screw) and the inner cover.
- Disconnect the water hose.
- Undo the outer fixing nut and lift away, together with the ball float.
- Re-assemble in reverse order.

COMPONENT REPLACEMENT (cont.)

Ball Float

- Proceed as above.
- Unscrew the ball float from the valve arm boss.
- When replacing ensure that the same geometry is maintained.
- Re-assemble in reverse order.

Lower Compartment Door

- Open door and remove 2 screws securing top trim to chassis.
- Lift door away, together with securing trim taking care not to lose door bushes.
- Re-assemble in reverse order.
- At this stage the door is reversible.

Upper Compartment Door

- Open door and remove oven furniture.
- Slacken off the screws securing the lower hinge block, whilst taking the weight of the door.
- The door can be lifted away. Take care not to lose door bushes.
- Re-assemble in reverse order.
- At this stage the door is reversible.

SPARE PARTS LIST

Description	OG7502	OG7504
Shelf	SH116	SH114
Shelf Rack	SH117	
Door Bush	BU55	
Oven Burner	BU77	
Check Valve	CV03	
Float Valve	FL29	
Ball Float	FL30	
Ignitor Lead	IG18	
Piezo Ignitor	IG38	
Thermocouple Interrupter	IN08	
Burner Injector (Natural)	JE153	
Burner Injector (Propane)	JE98	
Pilot Injector (Natural)	JE57	
Pilot Injector (Propane)	JE56	
Magnetic Catch	MC01	
Pilot Burner	PI08	
Door Seal	SE38	
Governor Spring (Propane)	SP65	
Thermocouple	TC40	
Thermopile	TC41	
Safety Thermostat	TH73	
Operating Thermostat	TH77	
Valve	VA20	

FAULT FINDING

Explanation of the Control System

The gas circuit in this Steamer is operated by two millivolt systems.

The first consists of an interrupted thermocouple, the pilot burner and the gas control.

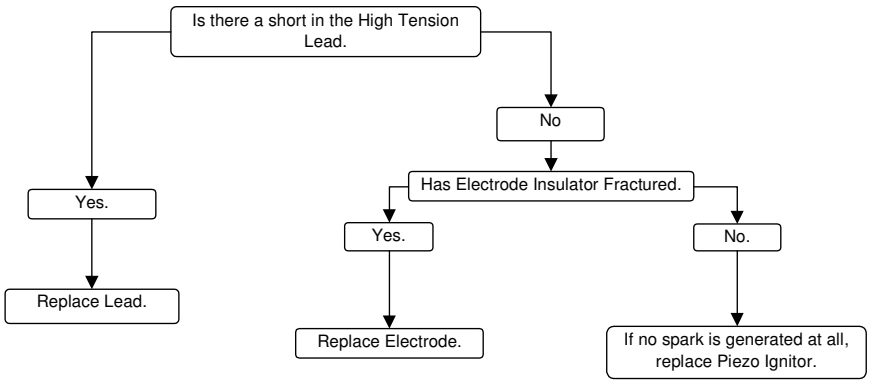
Heat from the pilot flame acting on the thermocouple generates a 15-20mV electrical potential.
This millivolt system connected to the gas control operates the first solenoid that allows gas to the pilot burner. The over temperature stat is included in this system which operates via the interrupted thermocouple.
The first solenoid operates as the safety device which shuts down in the event of a thermocouple failure or if the over temperature stat goes open circuit.

The secondary millivolt system consists of a thermopile acting through the gas control via the control thermostat.

Heat from the pilot flame acting on the thermopile generates a 500-700mV electrical potential.
This millivolt system connected to the gas control operates the secondary solenoid that passes gas to the main burners.

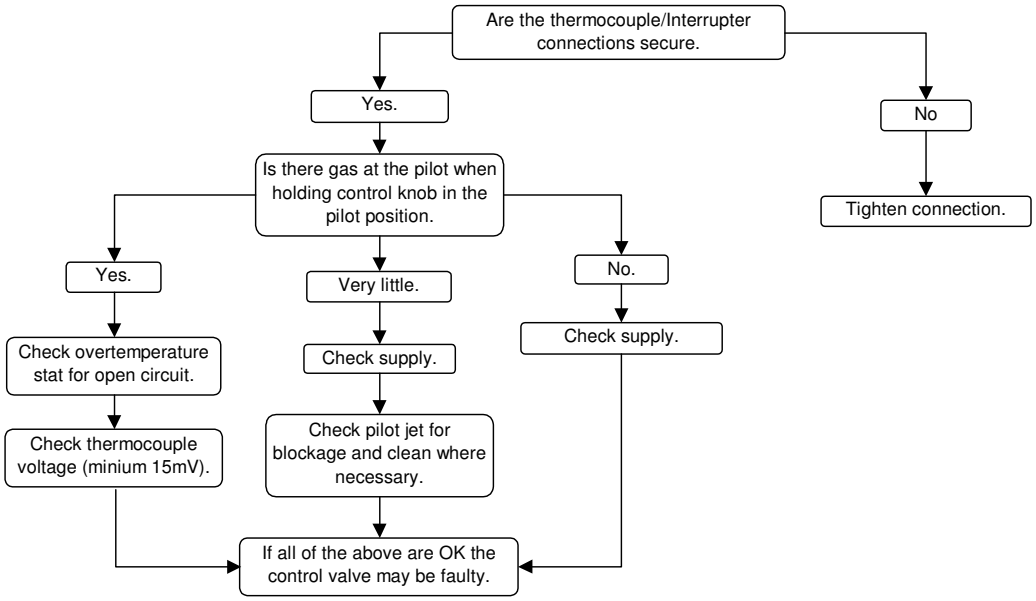
The system is interrupted by the control thermostat as it cycles, thereby opening and closing the gas supply to the main burners.
The following trouble shooting flow charts are designed to give assistance on the most probable cause of failure of the gas circuit.
Use the step by step instructions to quickly pinpoint problems and the advice to help in taking the appropriate action to rectify them.

Piezo Ignitor not sparking

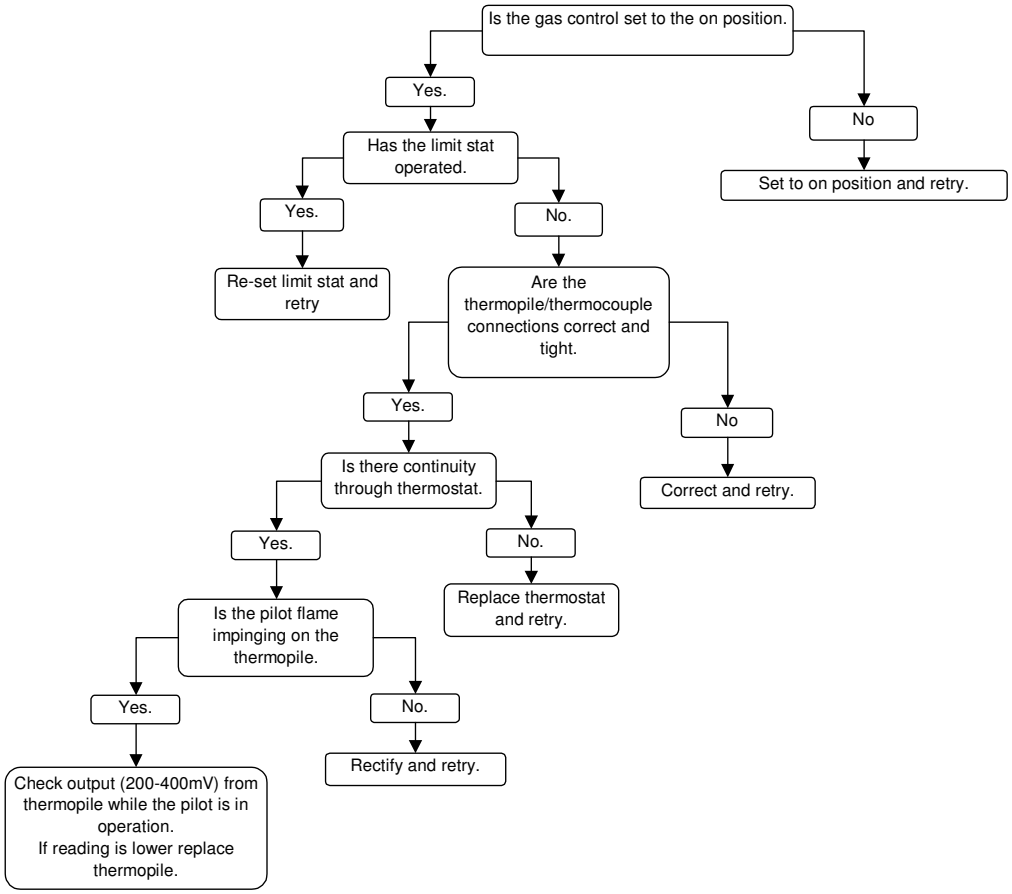


FAULT FINDING (cont.)

Pilot burner will not light or stay lit


Are the thermocouple/Interrupter connections secure.
Yes.
No
Tighten connection.
Is there gas at the pilot when holding control knob in the pilot position.
Yes.
Very little.
No.
Check overtemperature stat for open circuit.
Check supply.
Check supply.
Check thermocouple voltage (minium 15mV).
Check pilot jet for blockage and clean where necessary.
If all of the above are OK the control valve may be faulty.

Main burner will not light



FAULT FINDING (cont.)

Wiring Diagrams

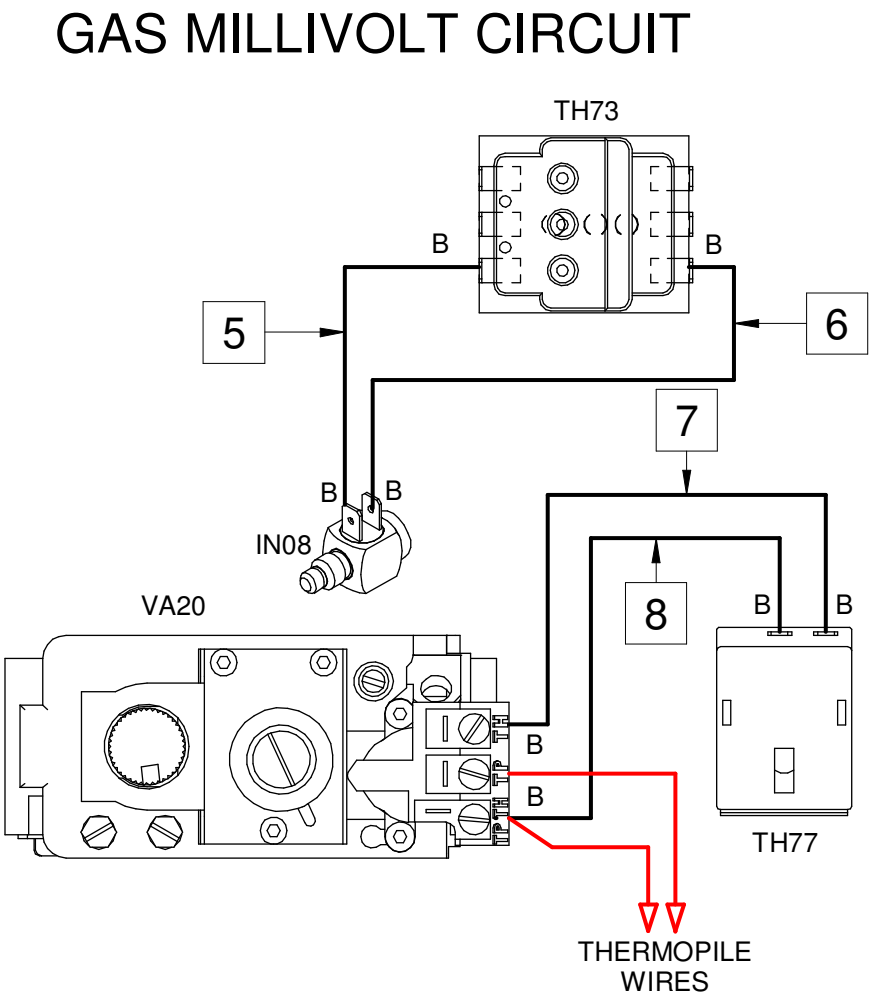


Fig. 7

SERVICE INFORMATION

Gas catering equipment should be routinely serviced to ensure a long trouble free life. It is recommended that this appliance is serviced every 6 months by a competent gas engineer. For help regarding the installation, maintenance and use of your LINCAT equipment, please call:-

LINCAT GROUP SERVICE HELP DESK

☎ +44 (0) 1522 875520

AUTHORISED SERVICE AGENTS

We recommend that all servicing, other than our authorised service agents carry out routine cleaning. We cannot accept responsibility for work carried out by other persons.

Please quote both the model and serial number from the data plate attached to the unit. Give brief details of the service requirement.

If possible please quote the product code of the part number you require.

Work carried out under warranty will normally be undertaken only during normal working hours, i.e. Monday to Friday, 8.30 a.m. - 5.30 p.m.

CONDITIONS OF GUARANTEE

The guarantee does not cover:-

1) Accidental breakage or damage
2) Operational misuse, wear and tear from normal usage, incorrect adjustment, or neglect.
3) Incorrect installation, maintenance, modification or unauthorised service work.

Notes